



DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

24 FEB 2003

Office of the Assistant Secretary

SAF/IEI
1665 Air Force Pentagon
Washington DC 20330-1665

The Honorable Duncan Hunter
Chairman, Committee on Armed Services
United States House of Representatives
Washington DC 20515-6035

Dear Mr. Chairman

This is to notify you, pursuant to 10 U.S.C. § 2825, that the Department of the Air Force is constructing replacement military family housing (MFH) in place of the Fiscal Year 2003 Congressionally-approved improvement project at the United States Air Force Academy (Atch 1). Design cost estimates to improve the original scope of 66 units (mixed grades) is \$160,475 per unit (total \$10,591,350). In order to award the improvement project within the programmed amount, the project would have to be downscoped to 38 units (due to decreased economy of scale) at a cost of \$168,921 per unit (total \$6,419,000).

The AF Academy has a concurrent FY03 replacement project for 61 units at \$203,837 per unit. Applying this per-unit cost to the FY03 improvement project, USAFA can replace 31 units within the \$6,419,000 available. The improvement cost (\$168.9K/unit) is 83% of the replacement cost (\$203.8K/unit) which exceeds the 70% criteria outlined in 10 U.S.C. § 2825. The remaining requirement will be programmed in an out-year program. The Economic Analysis Executive Summary (Atch 2) is submitted for your information.

A similar letter has been sent to the Ranking Minority Member of your Committee and to the Chairmen and the Ranking Minority Members of the Subcommittee on Military Installations and Facilities and the Senate Armed Services Committee.

Sincerely

A handwritten signature in black ink, appearing to read "Fred W. Kuhn", is positioned above the printed name.

FRED W. KUHN

Deputy Assistant Secretary of the Air Force
(Installations)

Attachments:

1. Congressional Notification
for Project Substitution
2. EA Executive Summary

**CONGRESSIONAL NOTIFICATION
FOR SUBSTITUTION OF FY03 USAF ACADEMY
IMPROVEMENT PROJECT WITH REPLACEMENT CONSTRUCTION**

INSTALLATION:

USAF Academy, CO

PROJECT:

Improve Family Housing Phase 1

AUTHORIZATION:

Fiscal Year 2003: Public Law 107-107

ESTIMATED COST:

Previously Appropriated	\$	0
Previously Reprogrammed	\$	0
Total Estimated cost	\$	6,419,000

DESCRIPTION:

Project will demolish 31 family housing units that were built in the 1950s and rebuild 31 units meeting current Air Force standards. This project includes upgrade of utility systems, driveways, and landscaping. To keep the total estimated cost within the FY03 improvement project's appropriated amount, as required by 10 USC 2825, the scope will be reduced from 66 to 31 units. The remaining requirement will be programmed in an out-year program.

JUSTIFICATION:

During the project's technical design it was determined that is more cost effective to replace these units rather than improve them. Constraints of the existing buildings and the sites, as well as the extensive renovations and additions required in this improvement project make the project costly. The estimates for the final design to improve the units were 83 percent of the revised estimates to replace the same units concurrent with the FY03 USAF Academy replacement project, which includes demolition of existing buildings and site preparation for new construction. An economic analysis has been performed comparing the alternatives new construction and renovation (improvement). The recommended option is replacement which was determined to be most cost effective solution that provides updated and energy efficient housing sized to the new statutory limitation.

SOURCE OF FUNDS:

No additional funds are required for this action. The replacement project will use funds appropriated for the improvement project.

DoD EXECUTIVE SUMMARY

LOCATION/MAJCOM: USAF Academy, Colorado / USAFA

PROJECT TITLE: Improve Military Family Housing Phase 1

PROJECT NUMBER: XPQZ037226

OBJECTIVE: Provide housing for military families, conforming to Air Force standards, be cost effective to the Government and have the least negative impact on families.

PROJECT COST / SCOPE: \$6,419,000 / 31 units

ALTERNATIVES EXAMINED:

	<u>Net Present Value</u>	<u>Benefit Score</u>	<u>Cost/Benefit Ratio</u>
1. Replacement	\$7,242,000	95	\$76,232
2. Improvement	\$6,925,000	70	\$98,929
4. Direct Compensation	N/A	N/A	N/A
5. Government Leasing	N/A	N/A	N/A

ANALYSIS METHOD:

All alternatives were examined using standard Air Force and DoD Economic Analysis techniques and procedures. This examination conforms to generally accepted cost analysis principles as specified in DODI 7041.3, AFI 65-501, AFMAN 32-1089 and AFMAN 65-506.

CONCLUSION:

Alternative 1, Replacement of existing enlisted grade housing is the recommended alternative. Replacement is the somewhat more costly alternative, yielding an NPV of \$7,242,000, compared with \$6,925,000 for the improvement alternative. The improvement alternative is less appealing however, because it is smaller (122 gsm JNCO 3-bdrm and 139 gsm SNCO 3-bdrm) than replacement models (151.4 gsm JNCO 3-bdrm and 172.8 gsm SNCO 3-bdrm) respectively. Comparison of the costs and benefits together by means of the cost/benefit ratio also indicates the replacement alternative is the most cost effective choice. The improvement and the replacement alternatives are both equally energy efficient. The Cost Sensitivity analysis revealed that the costs for the replacement alternative would have to be reduced by more than 4.38% before improvement would become the more expensive alternative. The Discount Rate Sensitivity analysis varied the discount rate by +/- 25%. There was no change in alternative rankings throughout the range; replacement remained the least expensive followed by the improvement alternative. Based on these requirements and the results of the Cost Benefit Analysis, the replacement alternative has much more to offer. It is therefore recommended that the replacement alternative be approved.